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Book of Abstracts

Underlying cause of neonatal macrosomia

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Background: High blood sugar levels (BSL) in pregnant could be a reason for macrosomia. The aim of our study was to present some indicators in LGA babies related to maternal diabetes.
Methods: This was a cohort prospective study conducted in the first six months in 2020 at the University Clinic for Gynecology and Obstetrics in Skopje, North Macedonia. The identification of the LGA newborns was according to WHO growth standards for both sexes.
Results: 108 LGA newborns, divided into three groups: A-36 LGA babies (33,3%) whose mothers had no history of Diabetes; B-14 LGA babies (12,9%) of mothers with pre-gestational Diabetes; C-56 LGA babies (51,6%) of mothers with Gestational diabetes were examined. Glycaemia was taken according to the National Guidelines (30 minutes after the second feed). The results showed significantly lower BSL in group C, mean 1,6±0,2 mmol/L (OR 2.19, 95% CI, 1.25–3.82, P=0.01). Both groups of newborns (A and B) had no significant difference in the mean value of BSL. The ratio of male/female was significantly higher in group A (1,4) compared to the other two groups, suggesting that associated factors other than diabetes are responsible for the macrosomia. The results showed that LGA babies have a much higher risk if their mothers have gestational diabetes compared to pre-existing diabetes, or with those whose mothers had no history or parameters of diabetes.
Conclusion: The impact of gestational diabetes during pregnancy depends on early identification and good management.

Keywords: LGA, diabetes, glycemia
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